V.A.5.N.?.??. PASCOPYRUM SMITHII – NASSELLA VIRIDULA HERBACEOUS VEGETATION ALLIANCE [PROVISIONAL]

Western Wheatgrass – Green Needlegrass Herbaceous Vegetation Alliance

PASCOPYRUM SMITHII – NASSELLA VIRIDULA HERBACEOUS VEGETATION [PROVISIONAL]

Western Wheatgrass – Green Needlegrass Herbaceous Vegetation

ELEMENT CONCEPT

GLOBAL SUMMARY: Not applicable

ENVIRONMENTAL DESCRIPTION

USFWS Wetland System: Upland

Florissant Fossil Beds NM Environment: The largest, nearly pure stand of this type occupies the deeper, silty clay soils of the Grape Creek floodplain, second terrace. Elsewhere, it is subdominant to introduced species such as *Bromus inermis, Poa pratensis,* and *Linaria vulgaris*, or it is intermixed with native species, including *Juncus balticus* and *Festuca arizonica*. These sites occur along upper floodplain terraces, in moist swales, and on toeslopes of hills and ridges where silty clay soils occur.

Global Environment: Not applicable

VEGETATION DESCRIPTION

Florissant Fossil Beds NM Vegetation: This potentially introduced grassland of native species is characterized by mixed stands of *Pascopyrum smithii, Nassella viridula, Bouteloua gracilis*, and *Artemisia frigida*. Only a portion of the community along Grape Creek northwest of the Hornbek Homestead site consists of a nearly pure stand of *Pascopyrum smithii*, however, it is very short (less than 0.5 m tall), while the associated *Nassella viridula* is between 0.5–1.0 m tall. Vegetative cover was between 60-70%, and litter completely covered the ground surface in the floodplain terrace stand sampled. At other locations, the *Pascopyrum smithii* and *Nassella viridula* stands are very small and often interspersed with other species, including *Bromus inermis, Linaria vulgaris*, and *Juncus balticus*. This association occupies the deeper silty clay soils of swales and on floodplain terraces.

This association occurred naturally within Badlands National Park in South Dakota on silty clay soils of plains, small ridges, and south-facing slopes (Von Loh et al. 1999).

Global Vegetation: Not applicable

Global Dynamics: Not applicable

MOST ABUNDANT SPECIES

Florissant Fossil Beds NM

Stratum	Species
Dwarf-shrub	*Artemisia frigida*
Graminoid	*Pascopyrum smithii, Nassella viridula, Bouteloua gracilis, Agropyron cristatum*
Forbs	*Linaria vulgaris*

Global

Stratum	Species
Graminoid	*Pascopyrum smithii, Nassella viridula*

CHARACTERISTIC SPECIES

Florissant Fossil Beds NM

Stratum	Species
Graminoid	*Pascopyrum smithii, Nassella viridula*
Dwarf-shrub	*Artemisia frigida*

Global Stratum	Species

OTHER NOTEWORTHY SPECIES

Florissant Fossil Beds NM

Global Stratum	Species

GLOBAL SIMILAR ASSOCIATIONS:
Pascopyrum smithii – Nassella viridula Herbaceous Vegetation

GLOBAL STATUS AND CLASSIFICATION COMMENTS

Global Conservation Status Rank: GW

Global Classification Comments:

ELEMENT DISTRIBUTION

Florissant Fossil Beds NM Range: This association is best represented on the floodplain terrace (second terrace) of Grape Creek, northwest of the Hornbek Homestead site. This site contained the largest stand observed (approximately 0.1 ha); it was thought to be introduced within the monument (Edwards and Weber 1990). Smaller stands occur in swales and along upper wetland margins, but these are rarely pure stands, rather they are mixed with other native and introduced species.

Global Range: Not applicable

Nations: US
States/Provinces: CO

ELEMENT SOURCES

Florissant Fossil Beds NM Inventory Notes: *Pascopyrum smithii* is reported to be planted at FLFO.
Classification Confidence: **Identifier:** Not determined
REFERENCES: Von Loh, J., D. Cogan, J. Butler, D. Faber-Langendoen, D. Crawford, and M. Pucherelli. 1999. USGS-NPS Vegetation Mapping Program, Badlands National Park, South Dakota. USBR Technical Service Center, Technical Memorandum No. 8260-00-02. Denver, CO.